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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,616	12/30/2003	Kothapalli Venkata Raju	C261 1040.1	2874
26158 7590 09/16/2010 WOMBLE CARLYLE SANDRIDGE & RICE, PLLC ATTN: PATENT DOCKETING P.O. BOX 7037 ATLANTA, GA 30357-0037				
			EXAMINER	
			CHEN, VIVIAN	
			ART UNIT	PAPER NUMBER
			1787	
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			09/16/2010 PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/747,616

**Applicant(s)**

RAJU ET AL.

**Examiner**

Vivian Chen

**Art Unit**

1787

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 4 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4 and 21-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 3, 5-20 have been cancelled by Applicant

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/18/2010 has been entered.

***Specification***

2. The objections to the amendment filed 10/27/2010 under 35 U.S.C. 132(a) have been withdrawn in view of the Claim Amendments filed 6/18/2010.
3. The objections to the amendment filed 10/15/2009 under 35 U.S.C. 132(a) have been withdrawn in view of the Declaration filed 6/18/2010.

***Claim Rejections - 35 USC § 112***

4. The rejections under 35 U.S.C. 112, first paragraph, have been withdrawn in view of the Claim Amendments filed 6/18/2010.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-2, 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is vague and indefinite because of the presence of trademarks and/or tradenames.

See MPEP 2173.05(u) below.

**MPEP 2173.05(u) Trademarks or Trade Names in a Claim**

\* \* \*

If the trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of the 35 U.S.C. 112, second paragraph. Ex parte Simpson, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. In fact, the value of a trademark would be lost to the extent that it became descriptive of a product, rather than used as an identification of a source or origin of a product. Thus, the use of a trademark or trade name in a claim to identify or describe a material or product would not only render a claim indefinite, but would also constitute an improper use of the trademark or trade name.

Claim 1 is vague and indefinite because it is unclear whether the "/" in the phrase "Alkyd/Epoxy resin" means that alkyd resin or epoxy resin are required, or whether a resin containing both alkyd and epoxy is required.

***Claim Rejections - 35 USC § 103***

7. Claims 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over:

WU (US 3,997,694) or WU (US 3,943,187),  
in view of SHANTON (US 5,776,619),  
and in view of WO 99/23179 (WO '179).

The WU references disclose coatings suitable for direct food contact (i.e., food safe) in food packaging articles, wherein the coating comprises 25-50 wt% binder with said binder comprising 5-40 wt% of an epoxy resin, 1-15 vol% pigment (e.g., titanium dioxide), and 2-8 vol% of an extending pigment (e.g., talc) (WU '694, line 1-8, col. 2; line 7-57, col. 4; line 10-20, col. 5, etc.) (see corresponding portions of WU '187) However, the reference does not explicitly disclose the claimed calcined clay.

SHANTON discloses that it is well known in the art to use mixtures of food grade pigments (e.g., titanium dioxide, talc, calcined clay, etc.) in food contacting coatings in order to provide attractive coloration to food packaging and food service articles. (line 1-9, col. 6; claim 28)

WO '179 discloses that it is well known in the art to use calcined clay as an extender for white or near white pigment compositions containing titanium dioxide in order to reduce material costs. (line 14-32, page 7)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a food safe coating as disclosed in the WU references to form durable protective films for food packaging containers. It also would have been obvious to incorporate a second known food safe extender pigment (i.e., calcined clay) in combination with talc in the coating compositions of the WU references in order to obtain specific visual effects with reduced material costs. One of ordinary skill in the art would have incorporated effective amounts of

known non-toxic functional coating additives conventionally used in the coating art to enhance the performance of coating compositions (e.g., to prevent foaming, control viscosity, modify surface-tension, maintain uniform dispersion of fillers and pigments, etc.) (claims 22-25) in the compositions of the WU references in order to improve the coating characteristics of the composition and the physical properties of the resultant coating. The Examiner has reason to believe that the vol% ranges of pigment disclosed in the WU references are inclusive of the wt% range recited in claim 21, therefore the Examiner has basis for shifting the burden of proof to applicant as in *In re Fitzgerald et al.*, 205 USPQ 594. The Examiner also has reason to believe that the presence of a solid, chemical resistant polymer coating as disclosed in the WU references would represent a barrier to oxygen transmission to at least some degree (relative to no coating) as recited in claim 21; therefore the Examiner has basis for shifting the burden of proof to applicant as in *In re Fitzgerald et al.*, 205 USPQ 594.

8. Claims 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over:  
WU (US 3,997,694) or WU (US 3,943,187), in view of SHANTON (US 5,776,619),  
and in view of WO 99/23179 (WO '179),  
as applied to claim 21,  
and further in view of CHRISTENSON ET AL (US 4,335,829).

CHRISTENSON ET AL discloses that it is well known in the art to incorporate known additives such as flow control agents, surfactants, and other formulating additives to food-grade coatings in order to enhance and modify the performance of coating compositions. (lines 35-38, col. 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use effective amounts of known non-toxic functional additives conventionally used in the coating art to enhance the performance of coating compositions (e.g., to prevent foaming, control viscosity, modify surface-tension, maintain uniform dispersion of fillers and pigments, etc.) (claims 22-25) in the compositions of the WU references in order to improve the coating characteristics of the composition and the physical properties of the resultant coating.

***Response to Arguments***

9. Applicant's arguments filed 6/18/2010 have been fully considered but they are not persuasive.

(A) Applicant argues that the coatings in the WU references are not capable of serving as an oxygen barrier when applied to a packaging substrate. As an initial matter, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a coating that provides an oxygen barrier to a coated packaging material as a whole) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The present claims only require that the coating material itself provides some degree of oxygen barrier (presumably relative to no coating at all) function. The term "oxygen barrier" is reasonably interpreted by one of ordinary skill in the art as any layer or material that inhibits or adversely affects the transmission or movement of oxygen through it; therefore, virtually any material that does not actively promote the transmission of oxygen is deemed to have some

degree of "oxygen barrier" function. Since one of ordinary skill in the art would reasonably believe that a protective, solid chemically resistant polymer coating such as those disclosed in the WU references would inhibit the passage of oxygen through said coating to at least some degree, the coatings in the WU references is reasonably deemed to have at least some oxygen barrier function, which meets the limitations of claim 21. Applicant has not provided any objective evidence the coatings of the WU references are wholly incapable of inhibiting the transmission of oxygen to any degree.

**MPEP 716.01(c) [R-2] Probative Value of Objective Evidence**

**>II. < ATTORNEY ARGUMENTS CANNOT TAKE THE PLACE OF EVIDENCE**

The arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). Examples of attorney statements which are not evidence and which must be supported by an appropriate affidavit or declaration include statements regarding unexpected results, commercial success, solution of a long-felt need, inoperability of the prior art, invention before the date of the reference, and allegations that the author(s) of the prior art derived the disclosed subject matter from the applicant. See MPEP § 2145 generally for case law pertinent to the consideration of applicant's rebuttal arguments.

Furthermore, while the RAJU Declaration filed 6/18/2010 states that in paragraphs 5-6 that it is in the Declarant's opinion that the prior art does not disclose materials with oxygen barrier capability, Applicant has not provided any objective evidence supporting such an assertion, especially when the present claims merely require that the coating material itself retards the transmission of oxygen through itself to at least some degree.



**MPEP 716.01(c) [R-2] Probative Value of Objective Evidence**

**III. < OPINION EVIDENCE**

\* \* \*

In assessing the probative value of an expert opinion, the examiner must consider the nature of the matter sought to be established, the strength of any opposing evidence, the interest of the expert in the outcome of the case, and the presence or absence of factual support for the expert's opinion.

\* \* \*

In *re Beattie*, 974 F.2d 1309, 24 USPQ2d 1040 (Fed. Cir. 1992) (declarations of seven persons skilled in the art offering opinion evidence praising the merits of the claimed invention were found to have little value because of a lack of factual support); *Ex parte George*, 21 USPQ2d 1058 (Bd. Pat. App. & Inter. 1991) (conclusory statements that results were "unexpected," unsupported by objective factual evidence, were considered but were not found to be of substantial evidentiary value).

Although an affidavit or declaration which states only conclusions may have some probative value, such an affidavit or declaration may have little weight when considered in light of all the evidence of record in the application. In *re Brandstadter*, 484 F.2d 1395, 179 USPQ 286 (CCPA 1973).

(B) Applicant argues that the WU references fail to explicitly disclose calcined clay. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

(C) In response to applicant's argument that SHANTON '619 and WO '178 each fail to appreciate the oxygen barrier property of calcined clay in combination of alkyd or epoxy resins, titanium dioxide, and talc, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Ohiaya*, 227 USPQ 58, 60 (Bd.

Pat. App. & Inter. 1985). SHANTON '619 discloses the use of calcined clay as a useful pigmenting agent for food safe coatings, while WO '178 discloses that it is well known in the art to use calcined clay in combination with titanium dioxide to reduce material costs.

(D) In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The WU reference disclose durable coatings which contain talc, titanium dioxide, and optionally other inorganic particles as pigment, while WO '178 discloses that it is well known in the art to extend more expensive pigments (e.g., titanium dioxide) with cheaper pigments (e.g., calcined clay) in order to reduce material costs, while SHANTON '619 discloses calcined clay as a useful pigment in food safe coatings. One of ordinary skill in the art would reasonably expect that using a cheaper pigment such as calcined clay which is known to be suitable for food contact in combination with other pigments including more expensive titanium dioxide would provide a desirable level of coloration in a food grade coating for reduced cost. The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. See *KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1739 (2007). Applicant has not provided probative evidence of criticality or unexpected results from the recited coating composition containing calcined clay.

(E) Applicant argues that there is no motivation to combine CHRISTENSON with the WU references because CHRISTENSON is not directed to providing oxygen barrier coatings. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). CHRISTENSON is relied upon to illustrate conventional type of additives commonly used in the coating art to improve coating layer formation, facilitate coating processes, and enhance coating performance. Applicant has not provided probative evidence of criticality or unexpected results from the use of said known additives.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivian Chen whose telephone number is (571) 272-1506. The examiner can normally be reached on Monday through Thursday from 8:30 AM to 6 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho, can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

The General Information telephone number for Technology Center 1700 is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 10, 2010

/Vivian Chen/

Primary Examiner, Art Unit 1787